



### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

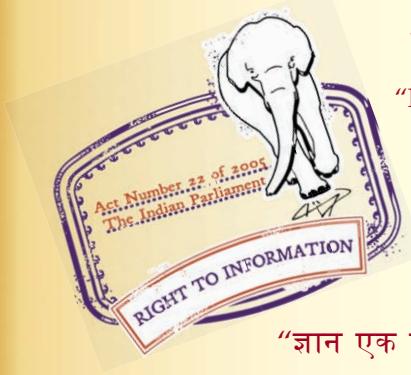
“Step Out From the Old to the New”

IS 8603-4 (2003): Dimensions for Porcelain Transformer Bushings for Use in Heavily Polluted Atmospheres, Part 4: 52 kV Bushings [ETD 6: Electrical Insulators and Accessories]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





BLANK PAGE



PROTECTED BY COPYRIGHT

भारतीय मानक  
अत्याधिक प्रदूषित वातावरण में प्रयुक्त  
पोर्सलेन ट्रान्सफार्मर बुशिंग  
भाग 4 52 के वी बुशिंग

*Indian Standard*  
DIMENSIONS FOR PORCELAIN TRANSFORMER  
BUSHINGS FOR USE IN HEAVILY POLLUTED  
ATMOSPHERES

**PART 4 52 kV BUSHINGS**

ICS 29.080.20:29.180

© BIS 2003

BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

## FOREWORD

This Indian Standard (Part 4) was adopted by the Bureau of Indian Standards, after the draft finalized by the Electrical Insulators and Accessories Sectional Committee had been approved by the Electrotechnical Division Council.

This standard covers the dimensions of porcelain parts of the transformers bushings of 52 kV for use in heavily polluted atmospheres .

This standard is one of the series of four Indian Standards on dimensions for porcelain transformer bushings for use in heavily polluted atmospheres. Other standards published in this series are as follows:

- (Part 1):1977 12 kV and 17.5 kV bushings
- (Part 2):1977 24 kV bushings
- (Part 3):1977 36 kV bushings

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard*

# DIMENSIONS FOR PORCELAIN TRANSFORMER BUSHINGS FOR USE IN HEAVILY POLLUTED ATMOSPHERES

## PART 4 52 kV BUSHINGS

### 1 SCOPE

This standard (Part 4) lays down the dimensions of the porcelain parts of the transformer bushings of 52 kV for use in heavily polluted atmospheres.

### 2 REFERENCES

The following standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
3347 (Part 8/ Sec 2):1992	Dimensions for porcelain transformer bushings for use in lightly polluted atmospheres: Part 8 52 kV Bushings, Section 2 Metal parts
5621:1980	Hollow insulators for use in electrical equipment ( <i>first revision</i> )

### 3 DIMENSIONS

#### 3.1 The dimensions of porcelain parts for 1 000 A

bushing for use in heavily polluted atmosphere is given in Fig. 1.

**3.2** Unless specified otherwise, tolerance on dimension shall be:

a)  $\pm (0.04 d - 1.5)$

where

$d = \pm 300 \text{ mm, and}$

b)  $\pm (0.025 d + 6)$

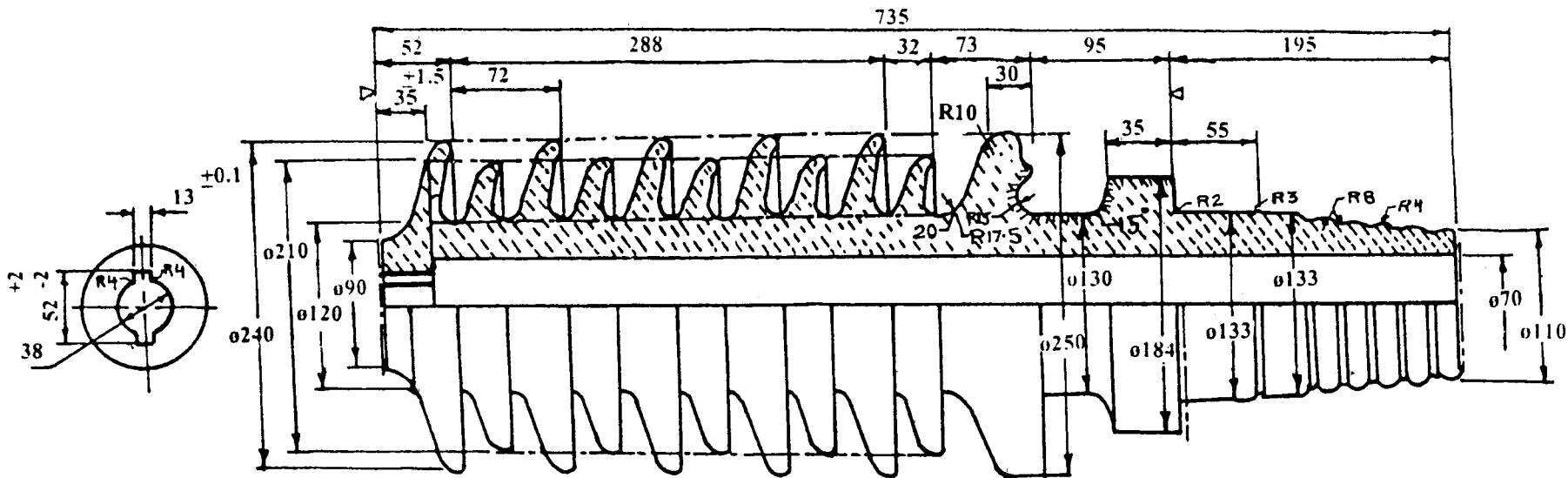
where

$d = \text{greater than } 300 \text{ mm.}$

**3.3** The maximum limits for the camber, ovality, eccentricity and tilt of shed of bushings shall be as per IS 5621.

### 4 METAL PARTS

For metal parts for these bushings, reference shall be made to IS 3347(Part 8/Sec 2).



## NOTES

- 1 □ Surface ground flat perpendicular.
- 2 ----- Unglazed portion.
- 3 ┏━━━━━━━ Metallized portion.
- 4 Total creepage distance (A to B) 1 320 mm.
- 5 Metallized material : Copper/Aluminium — Thickness — 0.01.
- 6 All dimensions in millimetres.

FIG. 1 PORCELAIN TRANSFORMER BUSHINGS OF 1 000 A

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publication), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc: No. ETD 06 (3995).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

### BUREAU OF INDIAN STANDARDS

#### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones: 2323 0131, 2323 3375, 2323 9402

Telegrams: Manaksansta  
(Common to all offices)

#### Regional Offices:

Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 60 3843 60 9285
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892
Branches	: AHMEDABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. NAGPUR. NALAGARH. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM. VISAKHAPATNAM.	